We Claim:

1. A system for distributing cryptographic keys for encrypting digital data, the system comprising:

a first memory for storing a cryptographic key;

a digital data input medium for receiving digital data to be encrypted;

a second memory; and

a selector for coupling the first memory to the second memory via the digital data input medium,

wherein the second memory is used to store the cryptographic key temporarily before the cryptographic key is used for encrypting the digital data.

2. The system according to claim 1, wherein the digital data comprises digital video data.

3. The system according to claim 2, wherein the digital video data is in composite RGB format.

4. The system according to claim 1, wherein the digital data comprises multimedia data.

5. The system according to claim 1, wherein the digital data is encrypted in accordance with the High-bandwidth Digital Content Protection specification.

6. The system according to claim 1, wherein the second memory and the selector are implemented on a single integrated circuit chip.

7. A method for distributing an encryption key for encrypting digital data, the method comprising:

selecting an encryption key from a first set of encryption keys stored in a first memory;

transferring the selected encryption key from the first memory to a second memory over a digital data transfer medium that is also used for transferring the digital data to be encrypted; and

storing the selected encryption key temporarily in the second memory until it is used by an encryptor to encrypt the digital data.

8. The method according to claim 7, wherein the digital data comprises digital video data.

9. The method according to claim 8, wherein the digital video data is in composite RGB format.

10. The method according to claim 8, wherein the digital data comprises multimedia data.

11. The method according to claim 7, wherein the first set of encryption keys includes keys compatible with the High-bandwidth Digital Content Protection specification.

12. A system for encrypting digital data, the system comprising:

a first input terminal for receiving the digital data;

a second input terminal for receiving a key;

an encryptor for receiving and encrypting the digital data using the key; and

a first output terminal for transmitting the encrypted digital data,

wherein the system receives the key from an external key storage medium via the second input terminal during operation of the system.

13. The system for encrypting digital data according to claim 12, the system further comprising random access memory (RAM) for storing the key before the key provided to the encryptor to be used for encryption of the digital data.

14. The system for encrypting digital data according to claim 13, the system further comprising a multiplexer coupled to the first input terminal and the second input terminal, wherein the multiplexer outputs either the digital data from the first input terminal or the key from the second input terminal.

15. The system for encrypting digital data according to claim 14, the system further comprising a selector switch for receiving the digital data and the key from the multiplexer, wherein the selector switch provides the digital data to the encryptor, and wherein the selector switch provides the key to the RAM.

16. The system for encrypting digital data according to claim 12, wherein the key includes an encryption key, which is used for encrypting the digital data.

17. The system for encrypting digital data according to claim 12, wherein the second input terminal receives the key as a plurality of key segments.

18. The system for encrypting digital data according to claim 12, wherein the key includes a decryption key, which is used for decrypting the encrypted digital data.

19. The system for encrypting digital data according to claim 18, wherein the first output terminal is used to transmit the decryption key.

20. The system for encrypting digital data according to claim 19, wherein the decryption key is encoded prior to being transmitted via the first output terminal.

21. The system for encrypting digital data according to claim 20, wherein the key includes an encoding key, and the encoding key is used to encode the decryption key in the encryptor before the decryption key is transmitted via the first output terminal.

22. The system for encrypting digital data according to claim 12, wherein the digital data comprises digital video data.

23. The system for encrypting digital data according to claim 22, wherein the digital video data is in composite RGB format.

24. The system for encrypting digital data according to claim 12, wherein the digital data comprises multimedia data.

25. The system for encrypting digital data according to claim 12, wherein the encryptor complies with the requirements of the High-bandwidth Digital Content Protection (HDCP) specification.

26. The system for encrypting digital data according to claim 12, wherein the first input terminal, the second input terminal, the encryptor and the first output terminal are implemented on a single integrated circuit (IC) chip.

27. The system for encrypting digital data according to claim 12, wherein the second input terminal comprises a control bus, and wherein the system further comprises a controller coupled to the control bus, wherein the controller controls data flow in the system.

28. The system of encrypting digital data according to claim 27, wherein the control bus comprises an I^2C bus.

29. The system of encrypting digital data according to claim 27, wherein the controller is selected from a group consisting of a finite state machine (FSM), a microprocessor and a micro controller.

30. A method of encrypting digital data in a data encryption system, the method comprising the steps of:

receiving the digital data;

receiving a key from an external key storage medium;

encrypting the digital data using the key; and

transmitting the encrypted digital data as an output,

wherein the steps of receiving the digital data and receiving the key are performed during operation of the data encryption system.

31. The method according to claim 30, the method further comprising the step of storing the key in random access memory (RAM) before the key is used for encryption of the digital data.

32. The method according to claim 30, wherein the key includes an encryption key, and the encryption key is used for encrypting the digital data.

33. The method according to claim 30, wherein the step of receiving the key comprises the step of receiving a plurality of key segments.

34. The method according to claim 30, wherein the key includes a decryption key, and the decryption key is used for decrypting the encrypted digital data.

35. The method according to claim 34, the method further comprising the step of transmitting the decryption key.

36. The method according to claim 35, the method further comprising the step of encoding the decryption key before it is transmitted.

37. The method according to claim 36, wherein the key includes an encoding key, and the encoding key is used to encode the decryption key before the decryption key is transmitted as the output.

38. The method according to claim 30, wherein the digital data comprises digital video data.

39. The method according to claim 38, wherein the digital video data is in composite RGB format.

40. The method according to claim 30, wherein the digital data comprises multimedia data.

41. The method according to claim 30, wherein the step of encrypting the digital data complies with the requirements of the High-bandwidth Digital Content Protection (HDCP) specification.

42. A system for distributing cryptographic keys from a digital data transmitter to a digital data receiver via a digital link, the system comprising:

a digital data transmitter comprising

a first key storage medium for storing a first encryption key, a second encryption key and a first decryption key;

a data encryptor for using the first encryption key to encrypt digital data, and for using the

second encryption key to encrypt the first decryption key; and

a data link transmitter system for transmitting the encrypted digital data and the encrypted first decryption key over the digital link; and

a digital data receiver comprising:

a data link receiver for receiving the encrypted digital data and the encrypted first decryption key over the digital link;

a second key storage medium for storing a second decryption key;

a data decryptor for using the second decryptor key to decrypt the encrypted first decryption key, and for using the first decryption key to decrypt the encrypted digital data; and

a third key storage medium for storing the first decryption key.

43. The system according to claim 42, wherein the digital data transmitter comprises a Digital Versatile Disk (DVD) player.

44. The system according to claim 42, wherein the digital data comprises digital video data.

45. The system according to claim 42, wherein the digital data comprises multimedia data.

46. The system according to claim 42, wherein the second encryption key comprises a public key and the second decryption key comprises a private key.